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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,874	03/16/2005	Matthias Winkel	ZAHFRI P735US	9284

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EXAMINER	
YOUNG, EDWIN	

ART UNIT	PAPER NUMBER
3681	

MAIL DATE	DELIVERY MODE
10/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/527,874	WINKEL ET AL.	
	Examiner	Art Unit	
	Edwin A. Young	3681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 August 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *43-57* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *44,46-50 and 55* is/are allowed.

6)☒ Claim(s) *43,45,51-54,56 and 57* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 April 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/29/2007 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 43, 54 and 56 are rejected under 35 U.S.C. 102(e) as being anticipated by EVANS et al. (US 2003/0125850 A1).

Regarding claim 43, EVANS et al. discloses a method for reducing disturbing vibrations in a motor vehicle in which the disturbing vibrations are determined by a control and regulating device using suitable sensors, at least one device (12) is activated when previously established limiting values are exceeded by the control and

regulating device such that an amplitude of the disturbing motion is completely eliminated or at least damped, braking at least one mechanical frictional torque transfer rotating component (18) in a motor vehicle drive train with the at least one device such that a latter component or components is/are continuously or periodically braked in rotary motion when the disturbing vibrations occur or is/are excited to a compensatory vibration (see Figs. 1 and 4; ABSTRACT; page 1, paragraphs [0001], [0005] and [0010]; page 2, paragraphs [0011], [0012] and [0017]); and actuating one of a starting clutch or gear box in the drive train by the control and regulating device such that torque transmission capacity oscillates with the frequency of the disturbing vibration and has a phase offset in relation to the disturbing vibration through which the amplitude of the disturbing vibration is reduced to a predetermined value (see Fig. 4 and page 1, paragraph [0005]; page 2, paragraphs [0011]). Note that EVANS et al. discloses using the transmission ratio to control the motor (16) torque transmission capacity in the manner described in claim 43.

Regarding claim 54, EVANS et al. discloses a device for reducing disturbing vibrations in a drive train and in a motor vehicle (see Figs. 1 and 4). The device comprising a control and regulating device (30); sensors (42); leads (wires attached to (30)); the control and regulating device being activated when previously established limiting values are exceeded by the control and regulating device such that the disturbing vibrations are completely eliminated or at least damped in amplitude, the control and regulating device braking at least one mechanical frictional torque transfer rotating component (18) in the drive train such that a latter component or components

is/are continuously or periodically brought into vibration or braked in rotary motion when the disturbing vibrations occur or are excited to a compensatory vibration causing one or more of a vibration frequency, vibration amplitude and vibration phase angle to be constructed in relation to the one or more of a frequency, amplitude and vibration phase angle of the disturbing vibration causing a damping of the amplitude of the disturbing vibration with a superposition with the disturbing vibration (see ABSTRACT; page 1, paragraphs [0001], [0005] and [0010]; page 2, paragraphs [0011], [0012] and [0017]); and wherein the control and regulating device (30) is connected to an actuating device for activating a synchronization device in a gear box (14) through a control line (36) (see page 1, paragraph [0010]). Note that EVANS does not expressly state the use of an actuating device for activating a synchronization device in a gear box. However, EVANS et al. implies using an actuating device by stating the use of the control and regulating device (30) to control the shifting of the transmission. This is interpreted as meeting the claim language.

Regarding claim 56, EVANS et al. discloses a device for reducing disturbing vibrations in a drive train and in a motor vehicle (see Figs. 1 and 4). The device comprising a control and regulating device (30); sensors (42); leads (wires attached to (30)); the control and regulating device being activated when previously established limiting values are exceeded by the control and regulating device such that the disturbing vibrations are completely eliminated or at least damped in amplitude, the control and regulating device braking at least one mechanical frictional torque transfer rotating component (18) in the drive train such that a latter component or components

is/are continuously or periodically brought into vibration or braked in rotary motion when the disturbing vibrations occur or are excited to a compensatory vibration causing one or more of a vibration frequency, vibration amplitude and vibration phase angle to be constructed in relation to the one or more of a frequency, amplitude and vibration phase angle of the disturbing vibration causing a damping of the amplitude of the disturbing vibration with a superposition with the disturbing vibration (see ABSTRACT; page 1, paragraphs [0001], [0005] and [0010]; page 2, paragraphs [0011], [0012] and [0017]); and wherein the control and regulating device is connected to an abrasion-resistant permanent brake (16) for braking motor vehicle drive shafts (24a and 24b) through a control line (38).

Claims 45, 51, 53, 56 and 57 are rejected under 35 U.S.C. 102(b) as being anticipated by RANSON et al. (GB 2,346,351 A).

Regarding claim 45, RANSON et al. discloses a method for reducing disturbing vibrations in a motor vehicle in which the disturbing vibrations are determined by a control and regulating device using suitable sensors, at least one device is activated when previously established limiting values are exceeded by the control and regulating device such that an amplitude of the disturbing motion is completely eliminated or at least damped, braking at least one mechanical frictional torque transfer rotating component (20) in a motor vehicle drive train with the at least one device such that a latter component or components is/are continuously or periodically braked in rotary motion when the disturbing vibrations occur or is/are excited to a compensatory vibration (see Figs. 1 and 4a-4c; ABSTRACT, page 1, lines 20-21; page 2, lines 8-15;

page 3, lines 21-22; and page 4, lines 1-10 and 15-18); and arranging an abrasion-free permanent brake (13) actuated by the control and regulating device (15) behind a transmission such that with a rise in the vibration amplitude of the disturbing vibration, the permanent brake brakes a rotational speed of wheel drive shafts such that the amplitude of the disturbing longitudinal oscillation is reduced to a predetermined value (see page 4, lines 15-18).

Regarding claim 51, RANSON et al. discloses a method for reducing disturbing vibrations in a motor vehicle in which the disturbing vibrations are determined by a control and regulating device using suitable sensors, at least one device is activated when previously established limiting values are exceeded by the control and regulating device such that an amplitude of the disturbing motion is completely eliminated or at least damped, braking at least one mechanical frictional torque transfer rotating component (20) in a motor vehicle drive train with the at least one device such that a latter component or components is/are continuously or periodically braked in rotary motion when the disturbing vibrations occur or is/are excited to a compensatory vibration (see Figs. 1 and 4a-4c; ABSTRACT, page 1, lines 20-21; page 2, lines 8-15; page 3, lines 21-22; and page 4, lines 1-10 and 15-18); and determining via the control and regulating device rotational speeds of a clutch input side and a clutch output side with aid of rotational speed sensors, and ascertaining motor vehicle acceleration by the control and regulating device with aid of a sensor unit that recognizes longitudinal acceleration (see page 4, lines 1-6).

Regarding claim 53, RANSON et al. discloses a device for reducing disturbing vibrations in a drive train and in a motor vehicle (see Figs. 1 and 4a-4c). The device comprising a control and regulating device (15); sensors (29, 30 and 33-35); leads (unlabeled wires attached to (15)); the control and regulating device being activated when previously established limiting values are exceeded by the control and regulating device such that the disturbing vibrations are completely eliminated or at least damped in amplitude, the control and regulating device braking at least one mechanical frictional torque transfer rotating component (20) in the drive train such that a latter component or components is/are continuously or periodically brought into vibration or braked in rotary motion when the disturbing vibrations occur or are excited to a compensatory vibration causing one or more of a vibration frequency, vibration amplitude and vibration phase angle to be constructed in relation to the one or more of a frequency, amplitude and vibration phase angle of the disturbing vibration causing a damping of the amplitude of the disturbing vibration with a superposition with the disturbing vibration (see ABSTRACT; page 1, lines 20-21; page 2, lines 8-15; page 3, lines 21-22; and page 4, lines 1-10 and 15-18); and wherein the control and regulating device is connected to an actuating device for activating a clutch via a control line (see page 3, lines 14-16). Note that RANSON et al. implies the use of a foot-actuated clutch which, through sensors (29) and (30), is connected to the control and regulating device (15).

Regarding claim 56, RANSON et al. discloses a device for reducing disturbing vibrations in a drive train and in a motor vehicle (see Figs. 1 and 4a-4c). The device comprising a control and regulating device (15); sensors (29, 30 and 33-35); leads

(unlabeled wires attached to (15)); the control and regulating device being activated when previously established limiting values are exceeded by the control and regulating device such that the disturbing vibrations are completely eliminated or at least damped in amplitude, the control and regulating device braking at least one mechanical frictional torque transfer rotating component (20) in the drive train such that a latter component or components is/are continuously or periodically brought into vibration or braked in rotary motion when the disturbing vibrations occur or are excited to a compensatory vibration causing one or more of a vibration frequency, vibration amplitude and vibration phase angle to be constructed in relation to the one or more of a frequency, amplitude and vibration phase angle of the disturbing vibration causing a damping of the amplitude of the disturbing vibration with a superposition with the disturbing vibration (see ABSTRACT; page 1, lines 20-21; page 2, lines 8-15; page 3, lines 21-22; and page 4, lines 1-10 and 15-18); and wherein the control and regulating device is connected to an abrasion-resistant permanent brake (13) for braking motor vehicle drive shafts (22) through a control line (unlabeled).

Regarding claim 57, RANSON et al. discloses a device for reducing disturbing vibrations in a drive train and in a motor vehicle (see Figs. 1 and 4a-4c). The device comprising a control and regulating device (15); sensors (29, 30 and 33-35); leads (unlabeled wires attached to (15)); the control and regulating device being activated when previously established limiting values are exceeded by the control and regulating device such that the disturbing vibrations are completely eliminated or at least damped in amplitude, the control and regulating device braking at least one mechanical frictional

torque transfer rotating component (20) in the drive train such that a latter component or components is/are continuously or periodically brought into vibration or braked in rotary motion when the disturbing vibrations occur or are excited to a compensatory vibration causing one or more of a vibration frequency, vibration amplitude and vibration phase angle to be constructed in relation to the one or more of a frequency, amplitude and vibration phase angle of the disturbing vibration causing a damping of the amplitude of the disturbing vibration with a superposition with the disturbing vibration (see ABSTRACT; page 1, lines 20-21; page 2, lines 8-15; page 3, lines 21-22; and page 4, lines 1-10 and 15-18); and wherein the control and regulating device is connected to a power actuator on an internal combustion engine (10) of the motor vehicle via a control line (see page 2, lines 11-13).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over RANSON et al. (GB 2,346,351 A) in view of SCHUBERT et al. (US 3,701,499).

Regarding claim 52, RANSON et al. discloses a device for reducing disturbing vibrations in a drive train and in a motor vehicle (see Figs. 1 and 4a-4c). The device comprising a control and regulating device (15); sensors (29, 30 and 33-35); leads (unlabeled wires attached to (15)); the control and regulating device being activated

when previously established limiting values are exceeded by the control and regulating device such that the disturbing vibrations are completely eliminated or at least damped in amplitude, the control and regulating device braking at least one mechanical frictional torque transfer rotating component (20) in the drive train such that a latter component or components is/are continuously or periodically brought into vibration or braked in rotary motion when the disturbing vibrations occur or are excited to a compensatory vibration causing one or more of a vibration frequency, vibration amplitude and vibration phase angle to be constructed in relation to the one or more of a frequency, amplitude and vibration phase angle of the disturbing vibration causing a damping of the amplitude of the disturbing vibration with a superposition with the disturbing vibration (see ABSTRACT; page 1, lines 20-21; page 2, lines 8-15; page 3, lines 21-22; and page 4, lines 1-10 and 15-18). However, RANSON et al. does not disclose a disturbing motor vehicle longitudinal oscillation, preferably in a region of a motor vehicle seat, being recorded with the vibration sensor.

SCHUBERT et al. discloses an active fluid isolation system (see Fig. 1) having a signal indicative of a motor vehicle seat longitudinal oscillation disturbance being sent to a controller (see column 4, lines 8-16).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide the device for reducing disturbing vibrations in a drive train and in a motor vehicle of RANSON et al. with a disturbing motor vehicle longitudinal oscillation in a region of a motor vehicle seat being recorded with the

vibration sensor, in light of the teachings of SCHUBERT et al., in order to ensure the stabilization of the vehicle seat (see SCHUBERT et al., ABSTRACT).

Allowable Subject Matter

Claims 44, 46-50 and 55 are allowed.

Response to Arguments

Applicant's arguments filed 8/29/2007 have been fully considered but they are not persuasive.

Applicant argues that the additional limitation, "the control and regulating device braking at least one mechanical frictional torque transfer rotating component in the drive train" distinguishes over EVANS et al. and RANSON et al. However, as discussed in the rejections above, EVANS et al. and RANSON et al. provide for this additional limitation. The amended claim language only specifies that the rotating component, i.e. shafts (18) and (20) in EVANS et al. and RANSON et al. respectively, is a mechanical frictional torque transfer rotating component. Both references provide shafts 18 and 20 that are rotating components providing torque transfer through the mechanical frictional contact of the connections from the engine and differential. Furthermore, the control and regulating devices found in EVANS et al. and RANSON et al. brake the rotating component (see rejections above). Therefore, EVANS et al. and RANSON et al. each disclose the additional limitation of "the control and regulating device braking at least one mechanical frictional torque transfer rotating component in the drive train".

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edwin A. Young whose telephone number is 571-272-4781. The examiner can normally be reached on M-TH 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EAY

Charles A. Marmor 10/4/07

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